

REMARKS

Upon entry of this amendment, claims 1–90 will be pending in the application. Claims 22–90 are withdrawn. Claims 4, 7, 8, 15, 18, and 19 are amended herein for consistency. The rejections in the Office Action of April 4, 2008 are addressed individually below. Applicants note with thanks the indication in the Office Action that claims 2–4 and 13–15 would be allowable if rewritten in independent form.

Rejection under 35 U.S.C. §102

Claims 1, 5, 6, 10, 11, 12, 16, 17, and 21 were rejected under 35 U.S.C. §102(e) as being anticipated by Chiang *et al.* (US Patent Application Publication No. 2003/0082446; “Chiang”). Applicants respectfully traverse this rejection.

Applicants’ independent claims 1 and 11 are directed to bipolar articles having an arbitrary form factor, wherein the bipolar article as a whole has an overall form that is not cylindrical or prismatic. Exemplary bipolar articles having overall forms that are not cylindrical or prismatic are described and shown in the specification, *e.g.*, at FIG. 2 and FIG. 6A. These bipolar articles as a whole have an arbitrary shape.

Bipolar articles having such overall non-cylindrical or non-prismatic forms are not described or shown in Chiang. To the contrary, Chiang discloses various electrode structures and interfaces, and does not discuss the overall form of the article. The Office Action cites Figures 3A–D of Chiang. However, these figures illustrate electrode structures in which the interior interface between electrodes has a reticulated form. They do not show a bipolar article as a whole that is not cylindrical or prismatic, as claimed. The Office Action also cites paragraph 53 of Chiang, referring to a “tailorable or customizable device”. The full passage at paragraph 53 of Chiang reads as follows:

In addition to producing a single layer cell, or a stack, a multilayer cell with a higher energy density and power density can be achieved with the same materials in a planar interface design. The present invention provides systems or cells with a wide range of properties, for example, discharge rates, power densities, that can be made of the same set of materials. This provides flexibility and can lead to a more efficient design, prototyping and manufacturing sequence, as well as providing a tailorable or customizable bipolar device. A bipolar device having

structures of reticulated interface can be tailored for the purposes of controlling and optimizing charge and discharge kinetics.

Thus, the reference to tailoring or customization, properly interpreted in context means that, using the same materials disclosed in Chiang, a device may be made to have a wide range of properties by producing a multilayer cell in a planar interface design or tailoring the structures of reticulated interface. Again, the focus is on the interface structure or number of layers in the cell. Chiang does not, at this passage or elsewhere, disclose a bipolar article having an overall form that is not cylindrical or prismatic, as claimed, **or** disclose tailoring or customizing such an article so as to give it an overall form that is not cylindrical or prismatic.

Thus, Applicants respectfully submit that independent claims 1 and 11 are not anticipated by Chiang. Dependent claims 5, 6, 10, 12, 16, 17, and 21, which recite further limitations to the independent claims, are likewise distinguished. Accordingly, reconsideration and withdrawal of the rejection of these claims in view of Chiang is respectfully requested.

Rejection under 35 U.S.C. §103

Claims 7–9 and 18–20 were rejected under 35 U.S.C. §103(a) as being obvious over Chiang in view of Lanni (US Patent No. 5,949,213). Applicants respectfully traverse.

Claims 7–9 and 18–20 depend from claims 1 and 11, respectively, and recite that the bipolar article is conformal with a surface (claims 7 and 18) or space-filling within a cavity of a device (claims 8 and 19), or identify specific types of devices (claims 9 and 20).

As discussed above, Chiang does not disclose a bipolar article that “as a whole has an overall form that is not cylindrical or prismatic” as recited in independent claims 1 and 11. Lanni does not fill this deficiency of Chiang. Moreover, Lanni does not provide the additional features of claims 7–9 and 18–20.

Lanni is directed to a system and method for charging rechargeable batteries that allows a user to operate a portable appliance while its battery is recharging (see, *e.g.*, Lanni column 1

lines 43–55 and column 2 lines 6–9). The Office Action relies on Lanni as disclosing a battery installed in a portable appliance such as a notebook computer or mobile telephone, and states that “[b]ecause the battery is installed in the portable appliance means that the battery is conformal to at least one surface of the appliance and fills a cavity within the appliance.” (Office Action, page 4). Applicants respectfully disagree.

Lanni discloses that the “charging circuitry and battery may be part of a rechargeable battery cartridge disposed within a compartment of a portable electronic device” (Lanni, Abstract). Similarly, a “battery section 6 is installed in a portable appliance 4” (Lanni, column 4, lines 15–18). The battery cartridge or section 6 is shown, *e.g.* in FIGS. 1, 2, 6A and 6B. However, the rechargeable battery itself – 8 in FIG. 2 or 18 in FIG. 4 – is not shown or described as “conformal with at least one surface of the device” or “space-filling within [a] cavity” of the device, as claimed.

Thus, Applicants submit that claims 7–9 and 18–20 are not obvious over Chiang in view of Lanni because the references even in combination do not teach or suggest every element of the claims. Accordingly, Applicants respectfully request reconsideration and withdrawal of the §103 rejection.

Conclusion

In view of the above amendments and remarks, it is respectfully believed that the objections and rejections in the Office Action of April 4, 2008 have been overcome and that all of the pending claims are in condition for allowance.

If the Examiner believes that a telephone interview would help expedite the successful prosecution of the claims, the Examiner is encouraged to telephone the undersigned at the number listed below.

Applicants hereby petition for a two month extension of time to respond to the Office Action of April 4, 2008, and request that the associated fee be charged to Deposit Account No.

08-0219. No additional fee is believed to be due in connection with this response; however, should a fee be required, please charge to Deposit Account No. 08-0219.

Respectfully submitted,
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